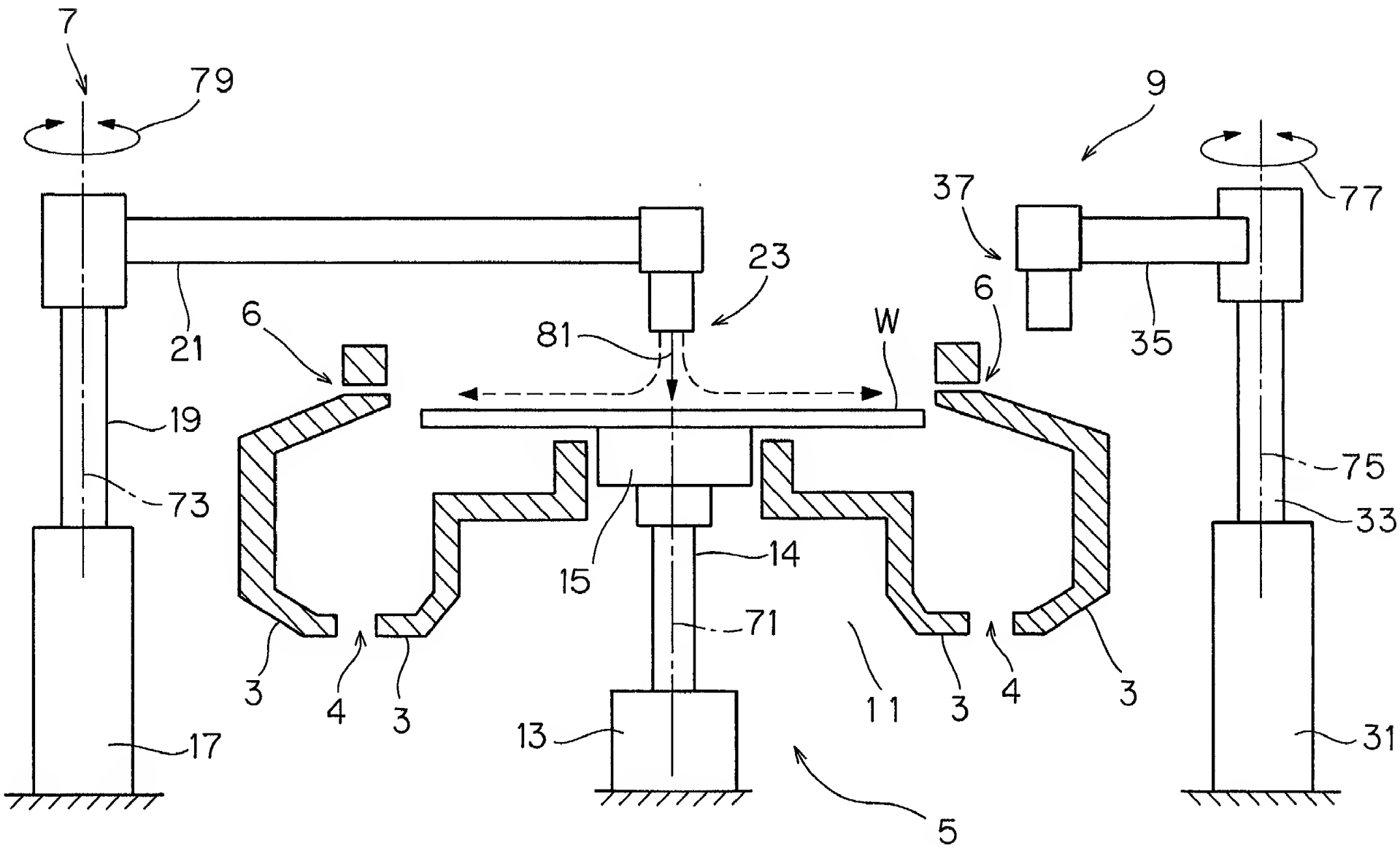
FIG. 1



1

FIG. 2

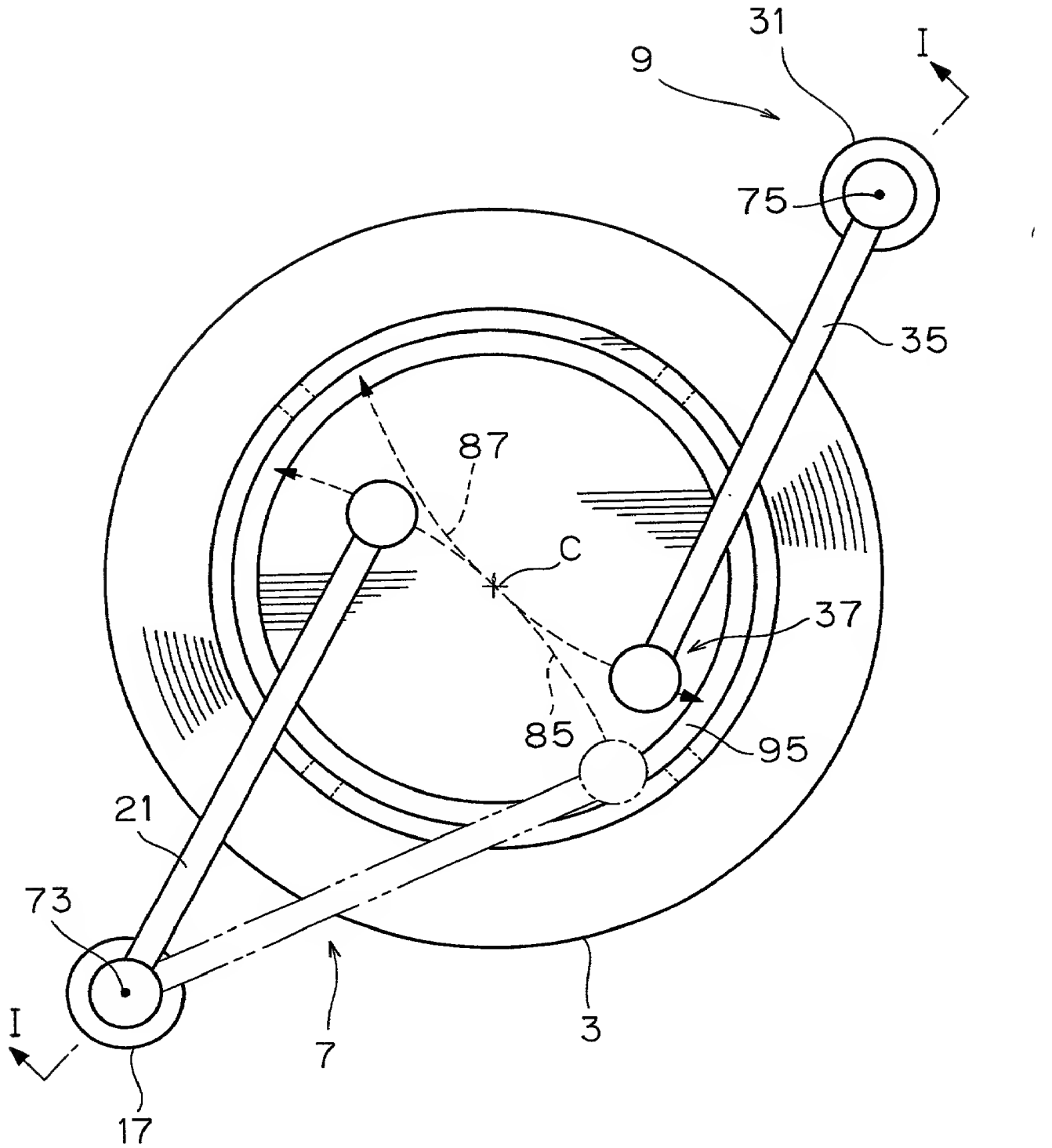


FIG. 3

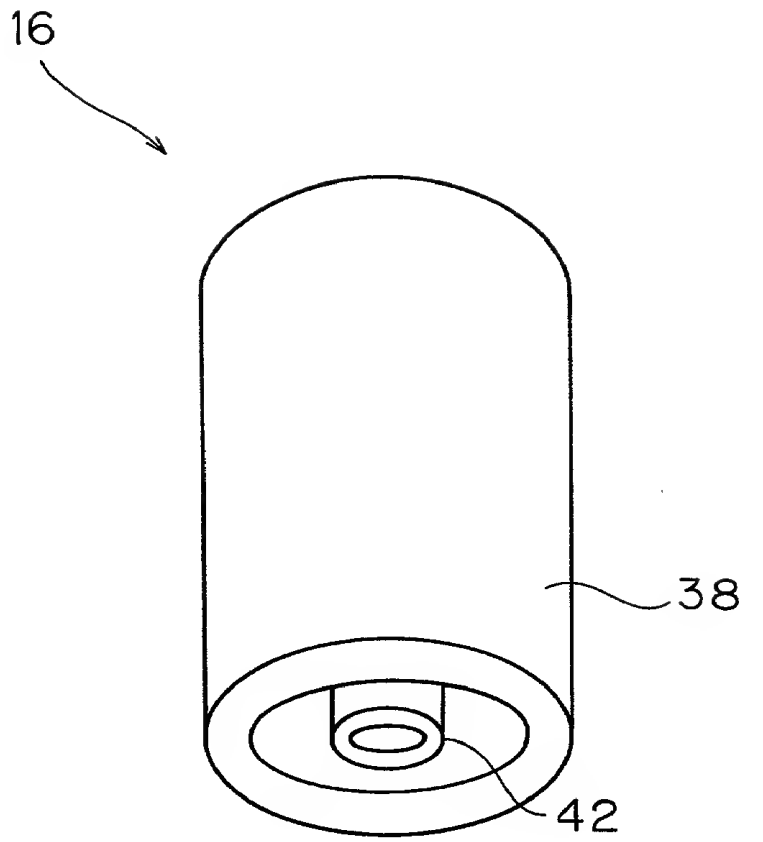


FIG. 4

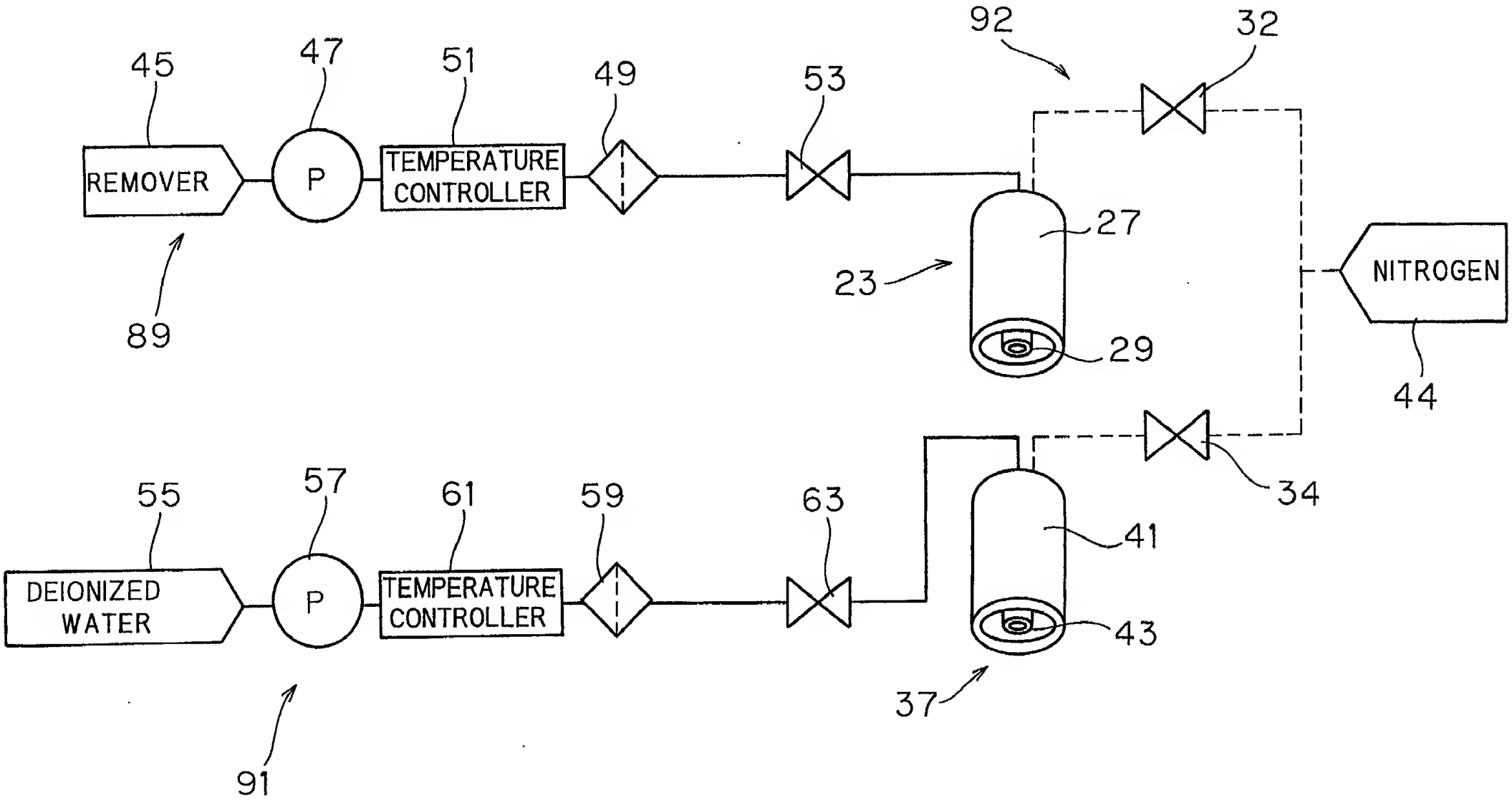

45
47
51
49
53
92
32
REMOVER
P
TEMPERATURE CONTROLLER
89
23
27
29
NITROGEN
44
34
55
57
61
59
63
41
43
DEIONIZED WATER
P
TEMPERATURE CONTROLLER
91
37

FIG. 5

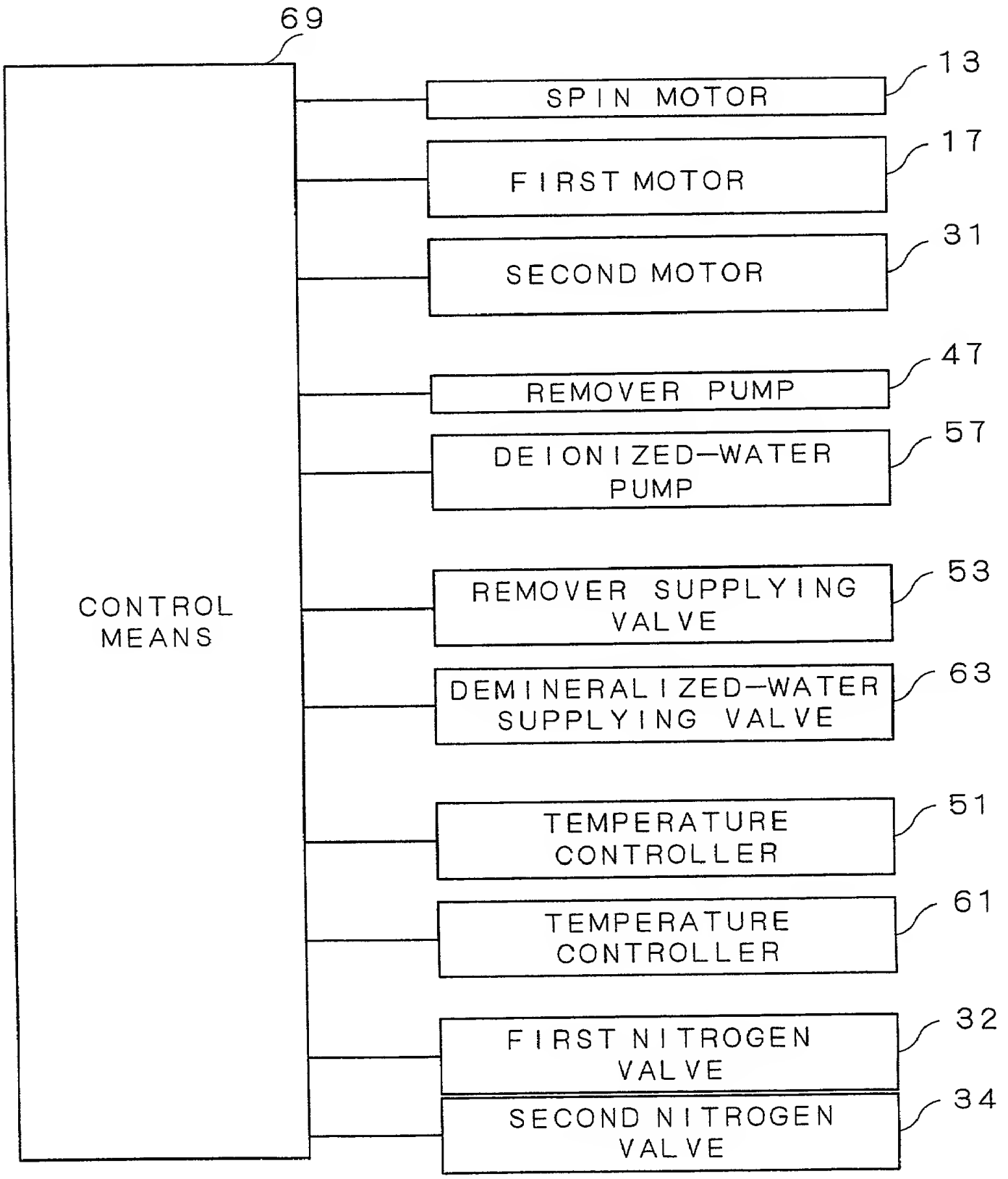

69
CONTROL MEANS
SPIN MOTOR
13
FIRST MOTOR
17
SECOND MOTOR
31
REMOVER PUMP
47
DEIONIZED-WATER PUMP
57
REMOVER SUPPLYING VALVE
53
DEMINERALIZED-WATER SUPPLYING VALVE
63
TEMPERATURE CONTROLLER
51
TEMPERATURE CONTROLLER
61
FIRST NITROGEN VALVE
32
SECOND NITROGEN VALVE
34

FIG. 6

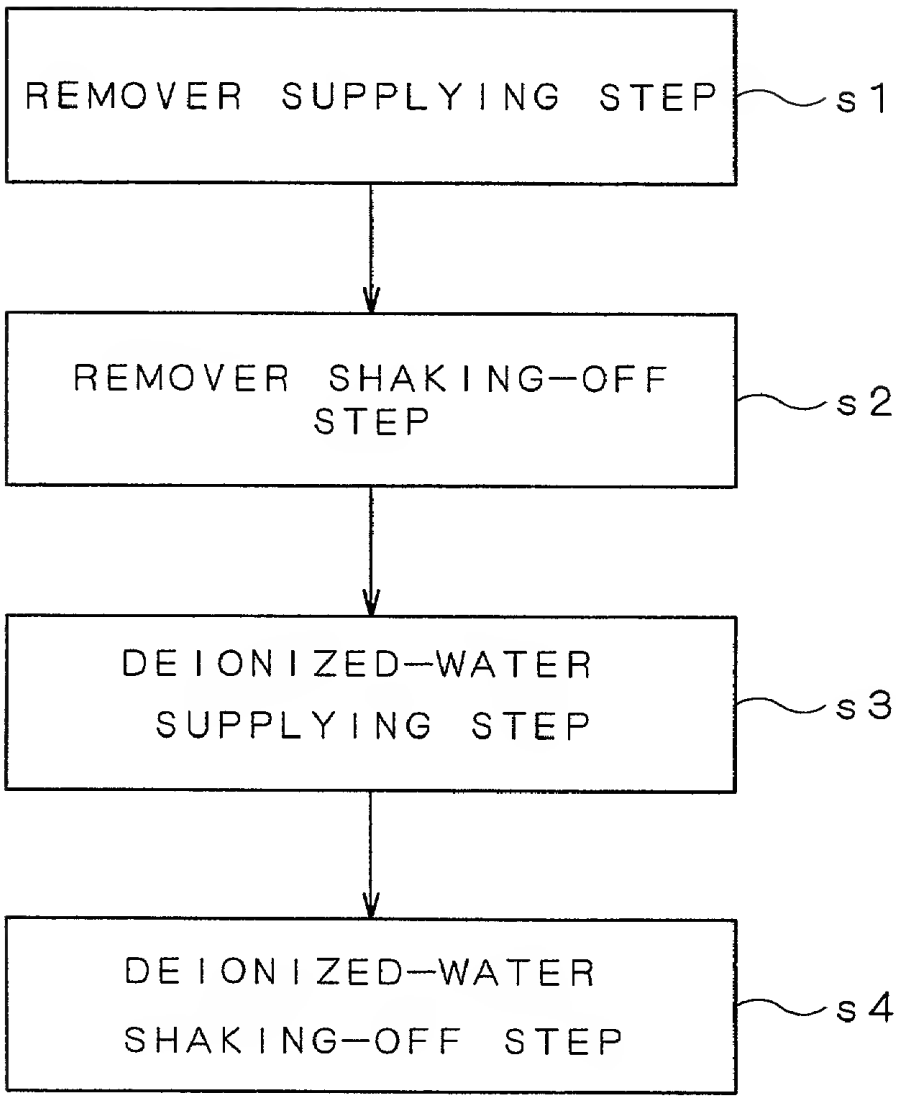

REMOVER SUPPLYING STEP
s1
REMOVER SHAKING-OFF STEP
s2
DEIONIZED-WATER SUPPLYING STEP
s3
DEIONIZED-WATER SHAKING-OFF STEP
s4

FIG. 7

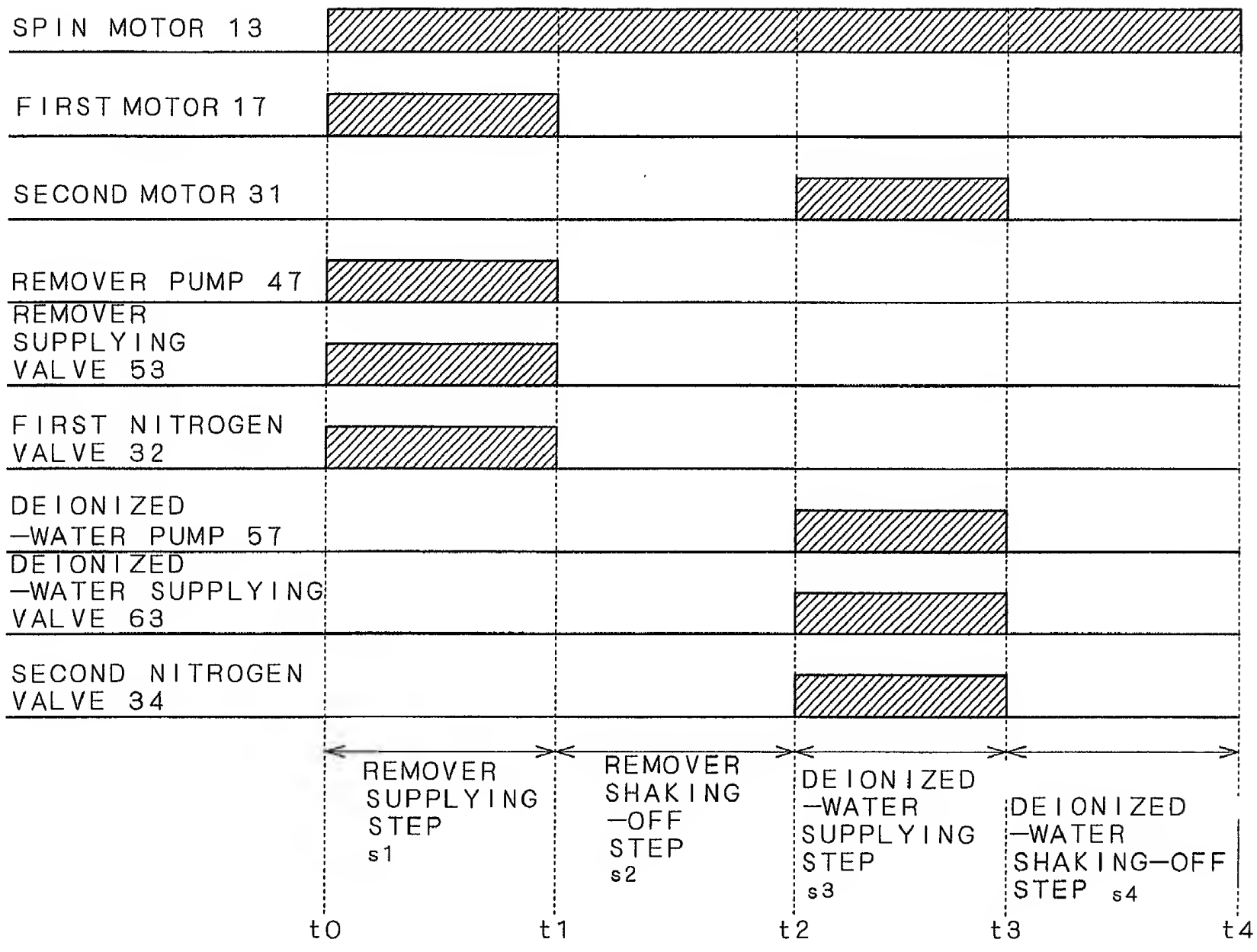
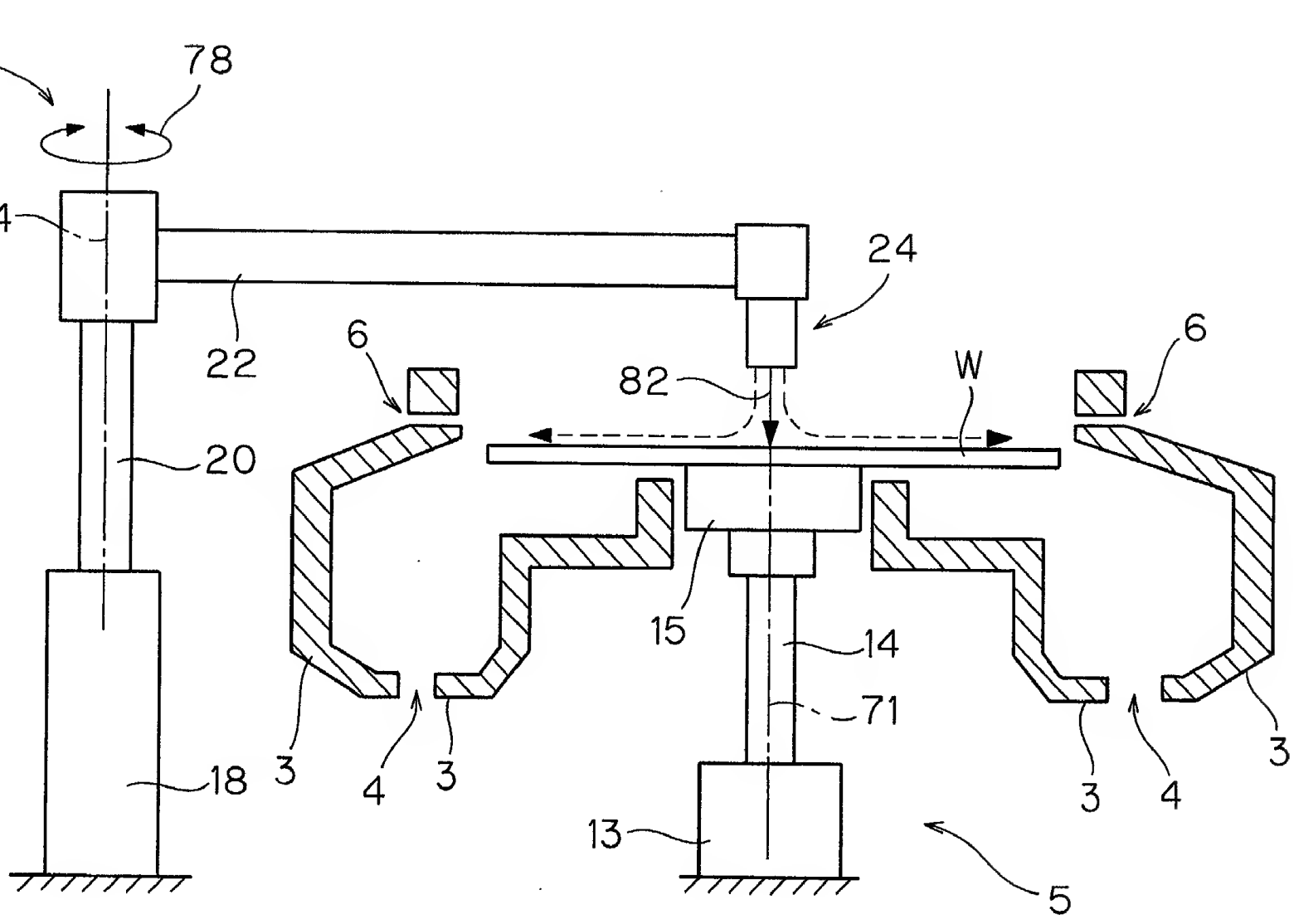

SPIN MOTOR 13
FIRST MOTOR 17
SECOND MOTOR 31
REMOVER PUMP 47
REMOVER SUPPLYING VALVE 53
FIRST NITROGEN VALVE 32
DEIONIZED -WATER PUMP 57
DEIONIZED -WATER SUPPLYING VALVE 63
SECOND NITROGEN VALVE 34
REMOVER SUPPLYING STEP s1
REMOVER SHAKING -OFF STEP s2
DEIONIZED -WATER SUPPLYING STEP s3
DEIONIZED -WATER SHAKING-OFF STEP s4
t0
t1
t2
t3
t4

FIG. 8



100

FIG. 9

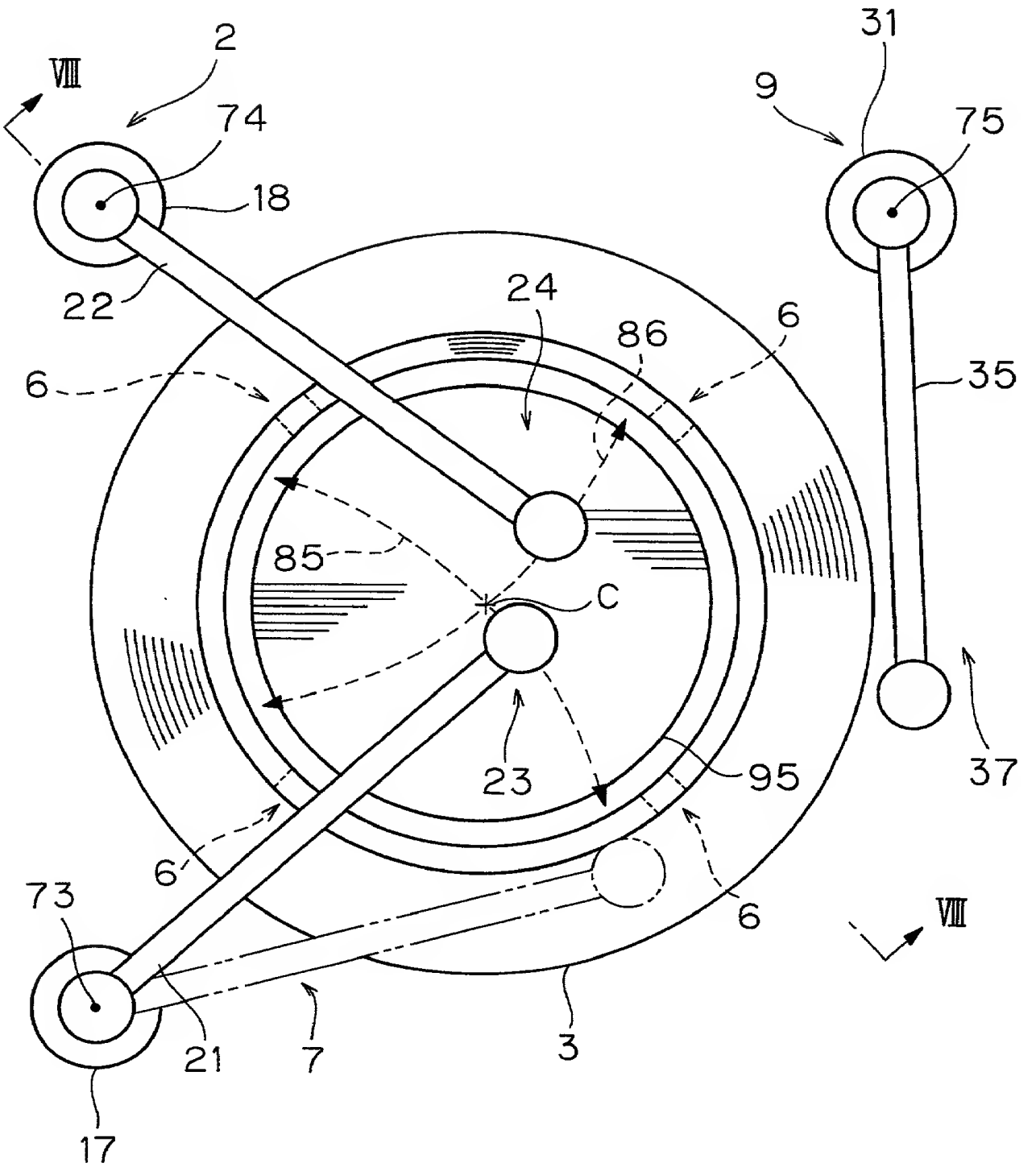


FIG. 10

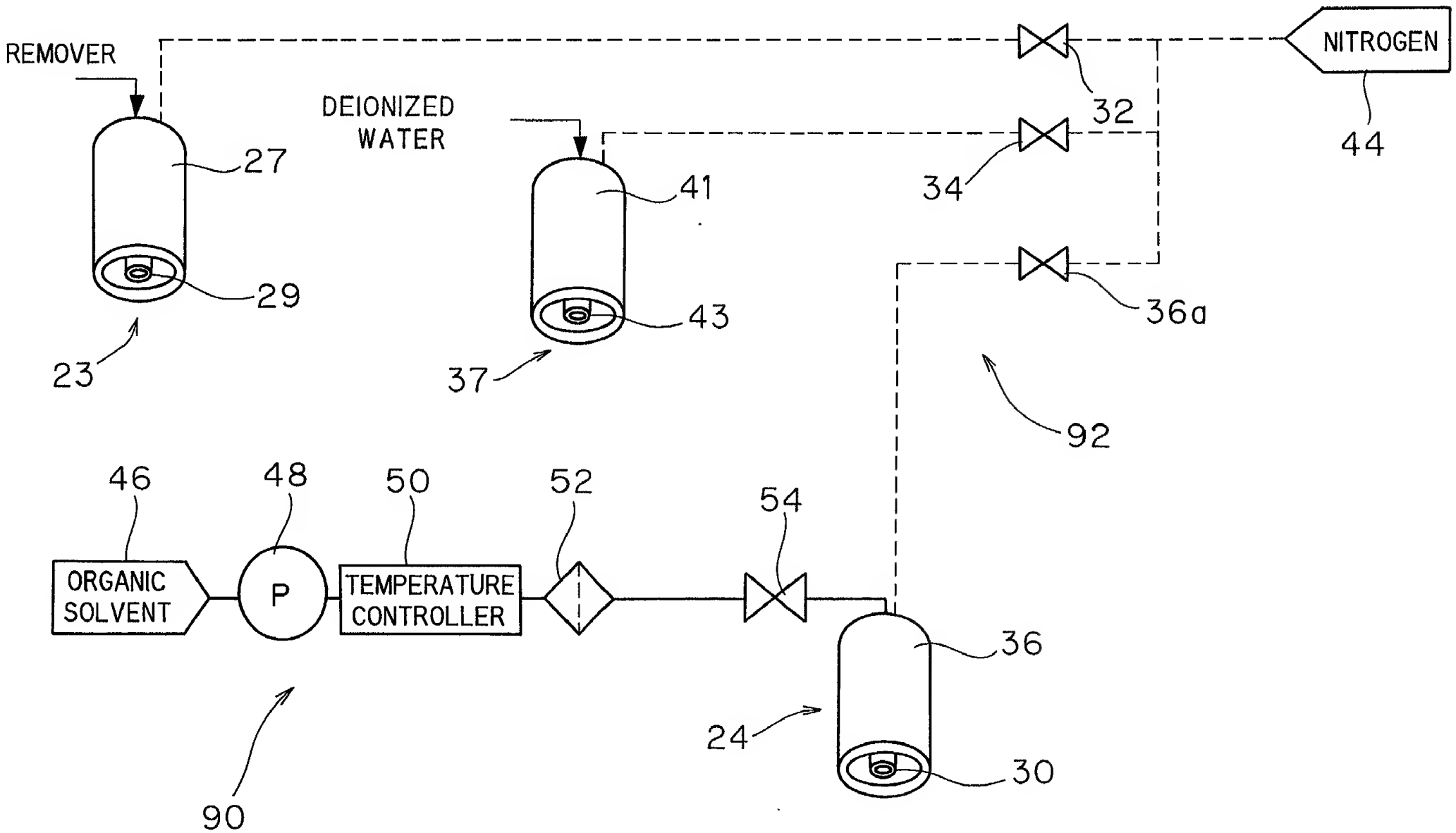

REMOVER
DEIONIZED WATER
NITROGEN
27
29
23
41
43
37
32
34
44
36a
92
46
48
50
52
54
ORGANIC SOLVENT
P
TEMPERATURE CONTROLLER
36
24
30
90

FIG. 11

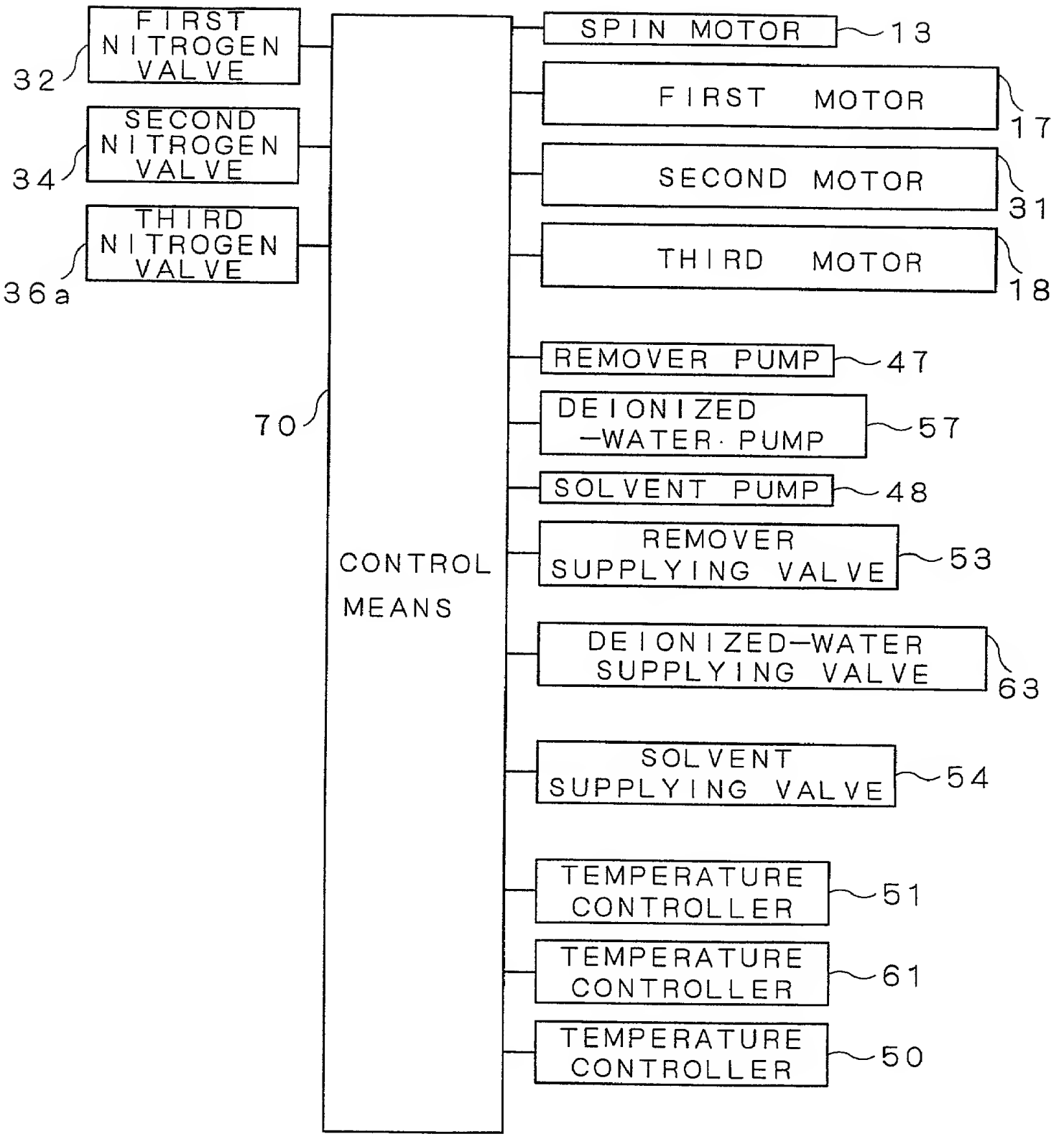

FIRST NITROGEN VALVE
32
SECOND NITROGEN VALVE
34
THIRD NITROGEN VALVE
36a
70
CONTROL MEANS
SPIN MOTOR
13
FIRST MOTOR
17
SECOND MOTOR
31
THIRD MOTOR
18
REMOVER PUMP
47
DEIONIZED -WATER PUMP
57
SOLVENT PUMP
48
REMOVER SUPPLYING VALVE
53
DEIONIZED-WATER SUPPLYING VALVE
63
SOLVENT SUPPLYING VALVE
54
TEMPERATURE CONTROLLER
51
TEMPERATURE CONTROLLER
61
TEMPERATURE CONTROLLER
50

FIG. 12

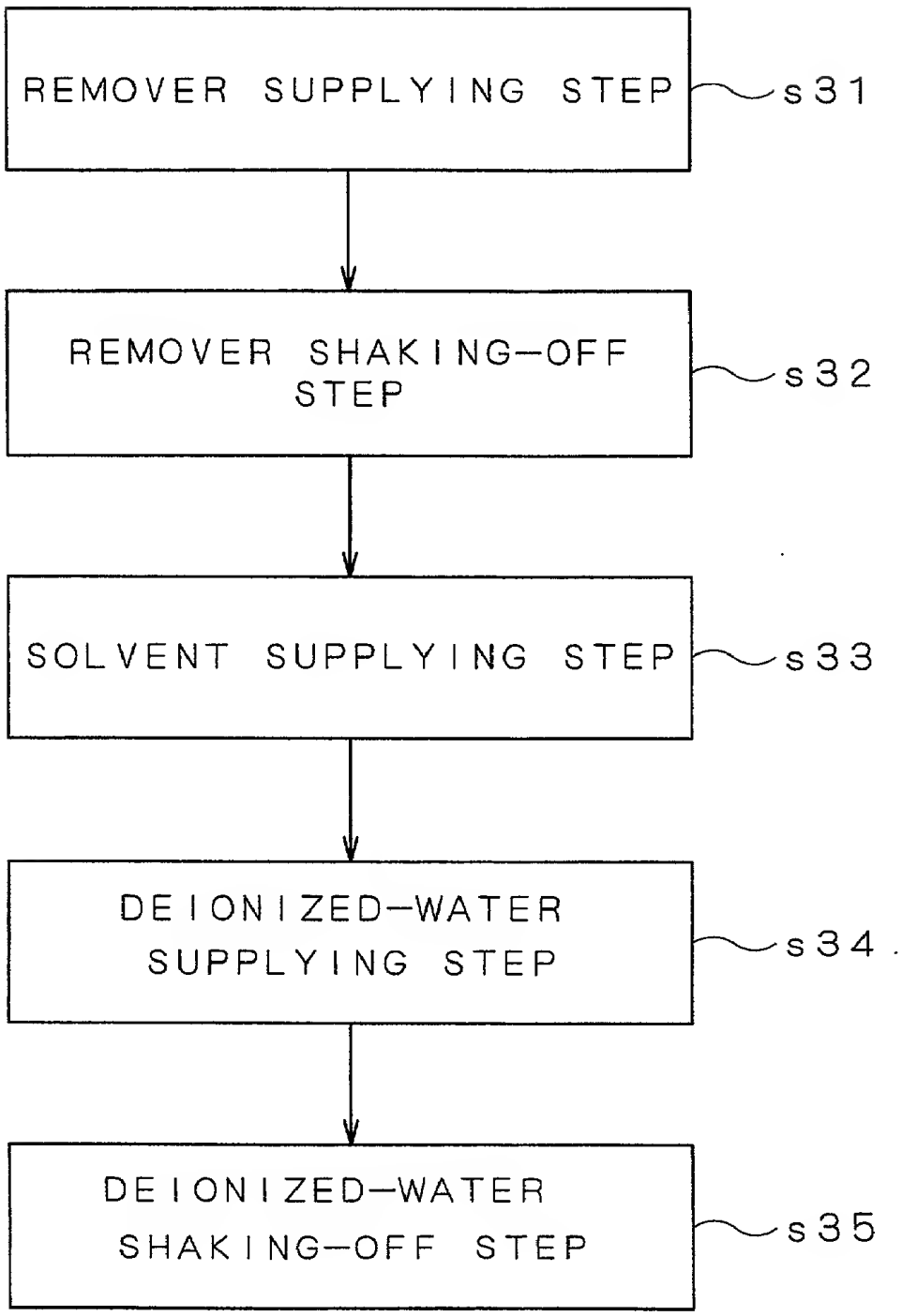

REMOVER SUPPLYING STEP
s31
REMOVER SHAKING-OFF STEP
s32
SOLVENT SUPPLYING STEP
s33
DEIONIZED-WATER SUPPLYING STEP
s34
DEIONIZED-WATER SHAKING-OFF STEP
s35

FIG. 13

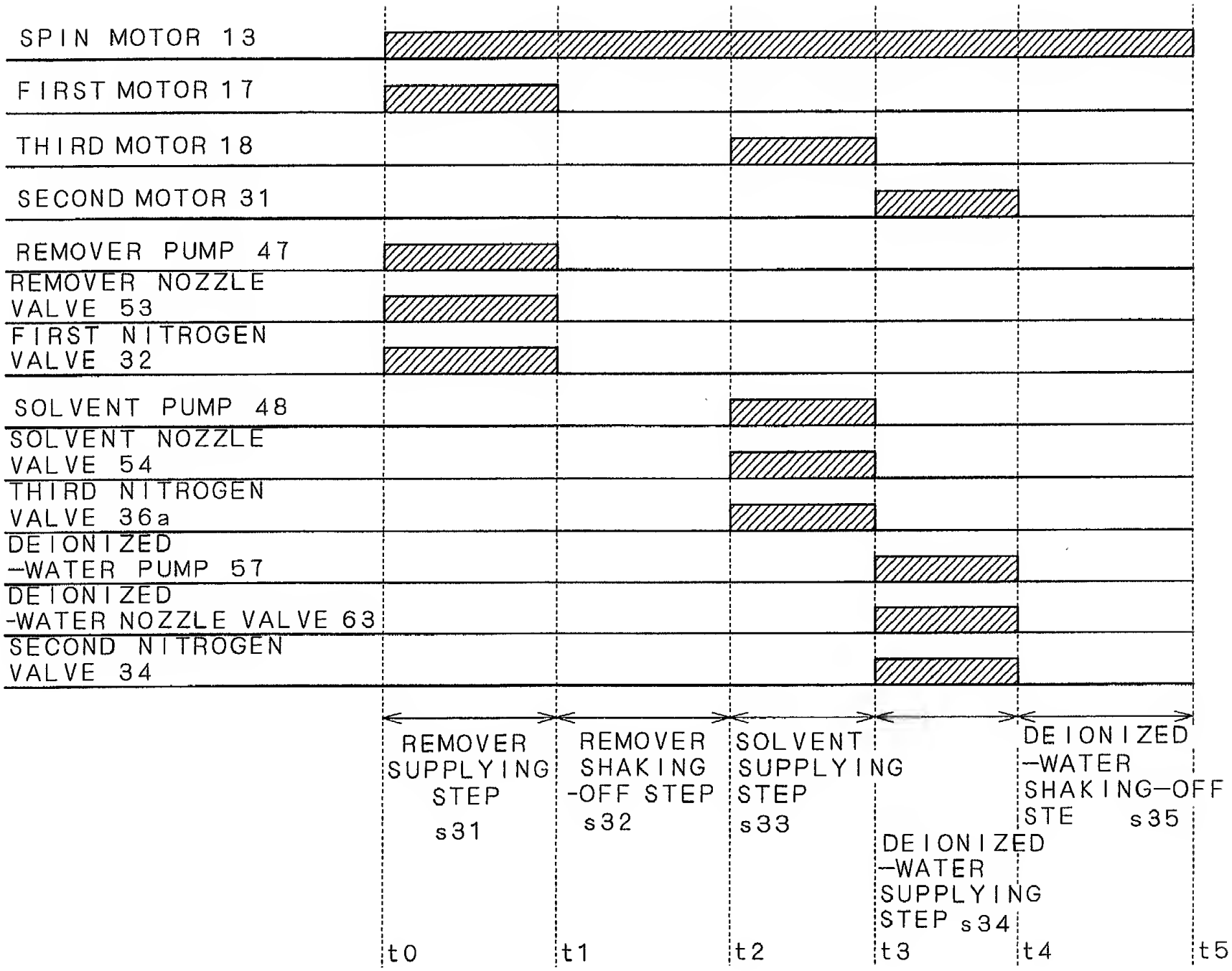

SPIN MOTOR 13
FIRST MOTOR 17
THIRD MOTOR 18
SECOND MOTOR 31
REMOVER PUMP 47
REMOVER NOZZLE VALVE 53
FIRST NITROGEN VALVE 32
SOLVENT PUMP 48
SOLVENT NOZZLE VALVE 54
THIRD NITROGEN VALVE 36a
DEIONIZED -WATER PUMP 57
DEIONIZED -WATER NOZZLE VALVE 63
SECOND NITROGEN VALVE 34
REMOVER SUPPLYING STEP s31
REMOVER SHAKING -OFF STEP s32
SOLVENT SUPPLYING STEP s33
DEIONIZED -WATER SUPPLYING STEP s34
DEIONIZED -WATER SHAKING-OFF STE s35
t0
t1
t2
t3
t4
t5

FIG. 14

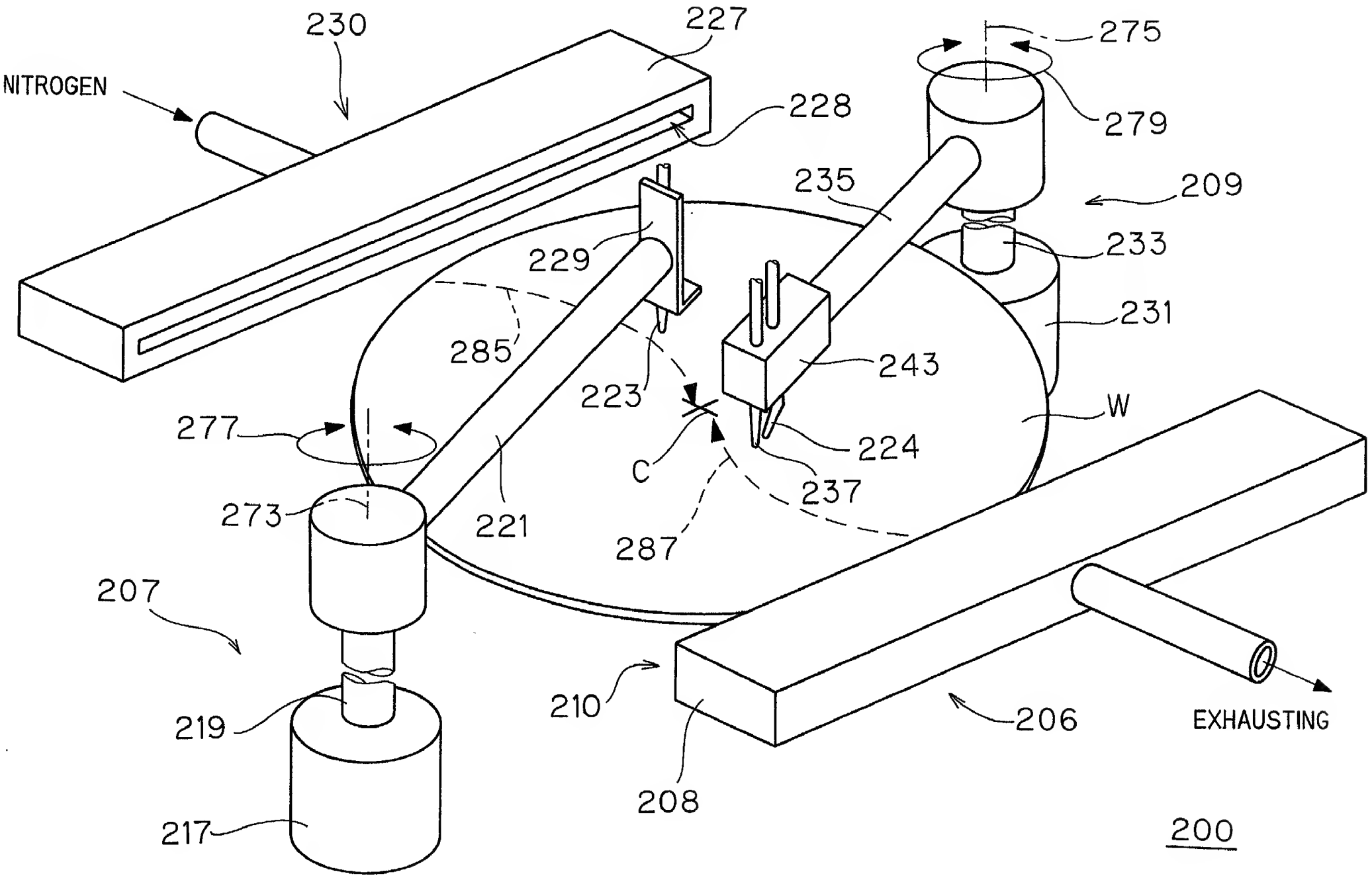

230
227
NITROGEN
228
275
279
235
209
233
229
231
285
243
223
W
277
224
C
237
273
221
287
207
210
206
EXHAUSTING
219
208
217
200

FIG. 15

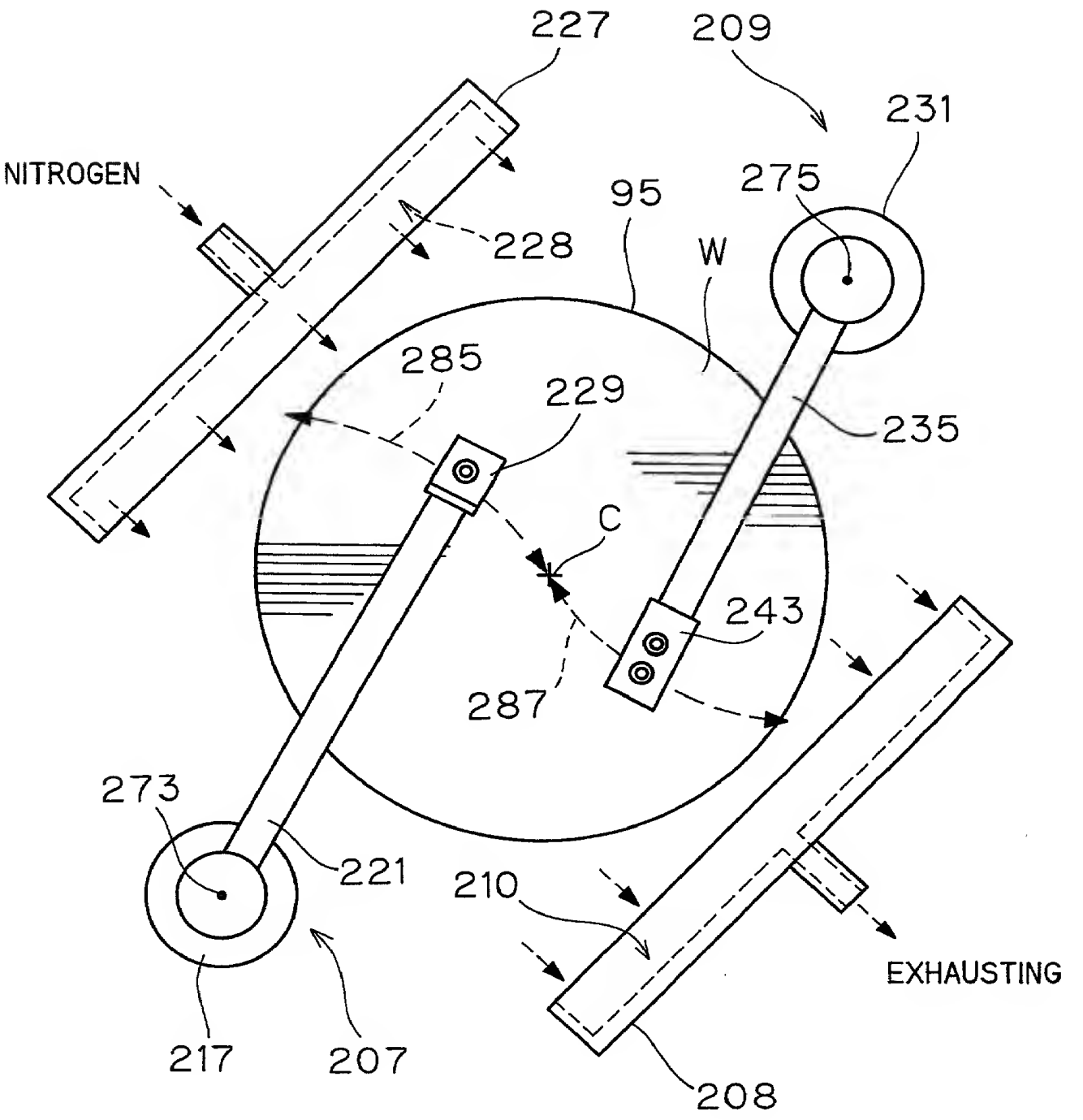

227
209
231
NITROGEN
275
95
228
W
285
229
235
C
243
287
273
221
210
EXHAUSTING
217
207
208

FIG. 16A

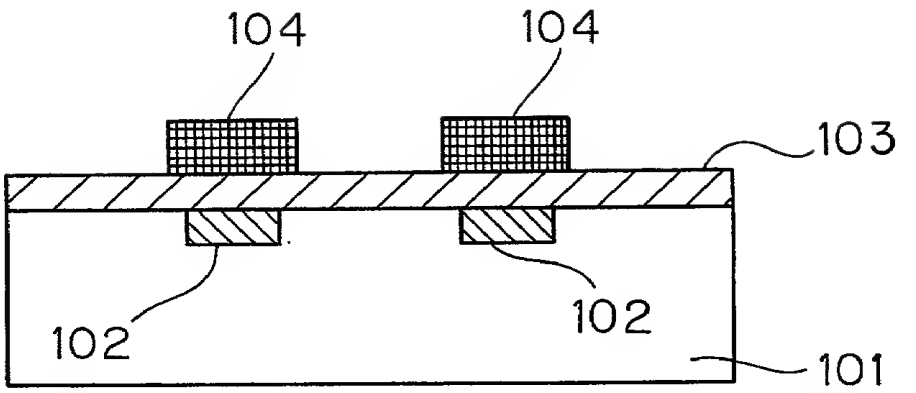


FIG. 16B

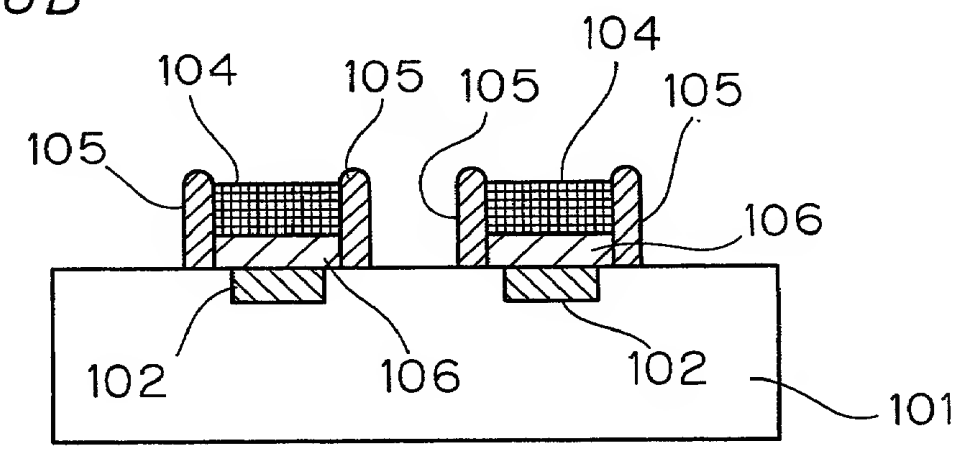
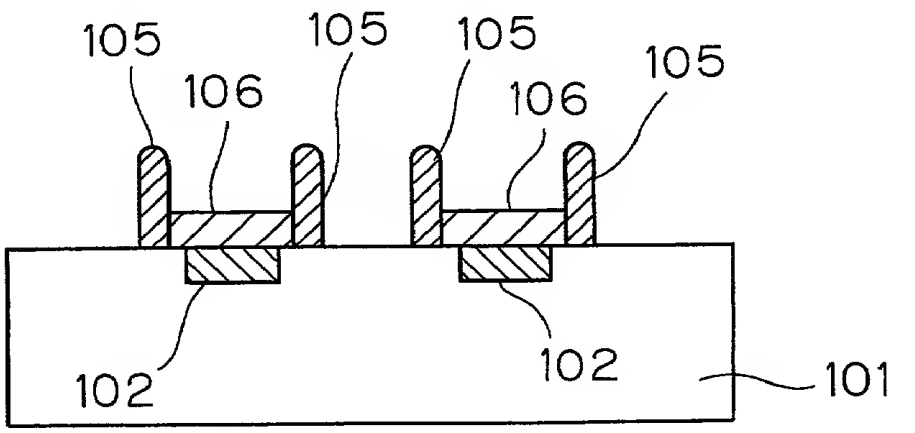



FIG. 16C